

WHAT IS CLAIMED IS:

1. A color conversion relation derivation method of deriving a color conversion relation between a first color space and a second color space, the color conversion relation derivation method comprising:

an area forming step that forms a plurality of areas filling the first color space;

10 a partial function derivation step that derives, for each of the areas formed in the area forming step, a partial function representative of a color conversion between coordinates in the area and coordinates of the second color space using a set of an arbitrary sample point provided in the first color space and a point in the second color space, which is associated with the sample point; and

15 a whole function derivation step that combines the partial functions for the respective areas derived by the partial function derivation step to derive a whole function representative of the color conversion relation through the first color space in its entirety.

2. A color conversion relation derivation method according to claim 1, wherein the area forming step forms, as the plurality of areas, a plurality of areas overlapping with one another, and

25 the whole function derivation step combines the partial functions in a range that the areas are overlapped

with one another.

3. A color conversion relation derivation

apparatus for deriving a color conversion relation between
5 a first color space and a second color space, the color
conversion relation derivation apparatus comprising:

an area forming section that forms a plurality of
areas filling the first color space;

10 a partial function derivation section that derives,
for each of the areas formed in the area forming section, a
partial function representative of a color conversion
between coordinates in the area and coordinates of the
second color space using a set of an arbitrary sample point
provided in the first color space and a point in the second
15 color space, which is associated with the sample point; and

15 a whole function derivation section that combines
the partial functions for the respective areas derived by
the partial function derivation section to derive a whole
function representative of the color conversion relation
through the first color space in its entirety.

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25 4. A color conversion relation derivation program
storage medium storing a color conversion relation
derivation program which causes a computer to operate as a
color conversion relation derivation apparatus, when the
color conversion relation derivation program is
incorporated into the computer and is executed, the color

conversion relation derivation apparatus comprising:

an area forming section that forms a plurality of areas filling the first color space;

5 a partial function derivation section that derives, for each of the areas formed in the area forming section, a partial function representative of a color conversion between coordinates in the area and coordinates of the second color space using a set of an arbitrary sample point provided in the first color space and a point in the second 10 color space, which is associated with the sample point; and

15 a whole function derivation section that combines the partial functions for the respective areas derived by the partial function derivation section to derive a whole function representative of the color conversion relation through the first color space in its entirety.